Exhibit 300 (BY2010)

PART ONE	
OVERVIEW	
1. Date of Submission:	2008-09-08
2. Agency:	026
3. Bureau:	00
4. Name of this Capital Asset:	JSC Software Development/Integration Laboratory
5. Unique Project Identifier:	026-00-01-05-01-1408-00

6. What kind of investment will this be in FY2010?

Operations and Maintenance

7. What was the first budget year this investment was submitted to OMB?

FY2005

8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap.

The Software Development and Integration Laboratory (SDIL) houses the Command & Data Handling (C&DH) subsystem along with other ISS subsystem hardware. The SDIL C&DH is comprised of flight equivalent hardware replicating the onboard computers & network capabilities of the International Space Station (ISS). The SDIL facility also includes the ground support & test functions for the associated ground operations & sustaining engineering. The Consolidated Labs group within Boeing provides the overall operations & sustaining of the multiple labs that comprise the SDIL facility (e.g. Software Verification Facility (SVF), Integrated Test Rig (ITR), Prime Software Production Facility (PSPF), etc). The support includes activities like SDIL systems engineering, operations, scheduling, and maintenance of test platforms, encompasses a large variety of activities including analysis, integration, test, verification, operations & sustaining. In the area of Hardware/Software Integration (HSI), the facility supports design integration, command & telemetry verification, and stage software verification. The facility provides the capability to perform mission flight following and C&DH Mission Evaluation Room (MER) console support; provides flight software support for KSC, and MOD; and houses the Portable Computer Systems (PCS), Station Support Computer (SSC) application and display development and reconfiguration. For the Guidance, Navigation & Control (GN&C) subsystem, the SDIL provides the capability to perform engineering analysis, GN&C subsystem integrations, and design mission specific Pre-Position Load software (PPLs). The SDIL supports Communications and Tracking (C&T) subsystem analysis and integrations in support of audio, video, space to space, space to ground Ku-Band and S-Band requirements closure. The ISS prime contract was awarded in 1993 to Boeing as a performance based contract for the total integrated design, development, manufacture, and integration of the U.S. On-Orbit Segment (USOS) of the ISS and is responsible for integrating all ISS systems and subsystems such as the C&DH subsystem, including International Partner/Participant (IP/P) elements which interface with the USOS, government furnished equipment developed by other contractors and provided to Boeing, providing ground support equipment, and providing technical support for ground and orbital operations.

9. Did the Agency's Executive/Investment Committee approve this request?

yes

9.a. If "yes," what was the date of this approval?

2008-06-19

10. Did the Program/Project Manager review this Exhibit?

yes

11. Program/Project Manager Name:

Susan Creasy

Program/Project Manager Phone:

281-244-7661

Program/Project Manager Email:

susan.l.creasy@nasa.gov

11.a. What is the current FAC-P/PM certification level of the project/program manager?

Senior/Expert/DAWIA-Level 3

11.b. When was the Program/Project Manager Assigned?

2005-04-01

11.c. What date did the Program/Project Manager receive the FACP/PM certification? If the certification has not been issued, what is the anticipated date for certification?

2008-08-08

12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project.

yes

12.a. Will this investment include electronic assets (including computers)?

yes

12.b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)

no

13. Does this investment directly support one of the PMA initiatives?

yes

If yes, select the initiatives that apply:

- Competitive Sourcing
- Expanded E-Government
- Financial Performance

13.a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?)

NASA full cost budgeting & accounting process improves financial mgmt, while linking budget and performance. The SDIL prime contractor was sole source selected by the agency and the white house. Support contracts are competitively sourced. This investment supports strategic human capital management & allocation as part of the continued effort to keep the ISS flying safely. It advances agency efforts to leverage new IT tech & create electronic access for program performance.

14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)?

yes

14.a. If yes, does this investment address a weakness found during the PART review?

no

14.b. If yes, what is the name of the PARTed program?

10000348 - International Space Station

14.c. If yes, what rating did the PART receive?

Moderately Effective

15. Is this investment for information technology?

yes

16. What is the level of the IT Project (per CIO Council's PM Guidance)?

Level 3

17. What project management qualifications does the Project Manager have? (per CIO Council's PM Guidance)

(1) Project manager has been validated as qualified for this investment

18. Is this investment identified as high risk on the Q4 - FY 2008 agency high risk report (per OMB memorandum M-05-23)?

no

19. Is this a financial management system?

no

20. What is the percentage breakout for the total FY2010 funding request for the following? (This should total 100%)

Hardware	2
Software	1
Services	97
Other	0

21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities?

n/a

22. Contact information of individual responsible for privacy related questions.

Name

Joreen Y. Lee

Phone Number

281-483-6210

Title

JSC Privacy Act Manager

Email

joreen.y.lee@nasa.gov

23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?

yes

24. Does this investment directly support one of the GAO High Risk Areas?

no

SUMMARY OF SPEND

1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated Government FTE Cost, and should be excluded from the amounts shown for Planning, Full Acquisition, and Operation/Maintenance. The total estimated annual cost of the investment is the sum of costs for Planning, Full Acquisition, and Operation/Maintenance. For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

All amounts represent Budget Authority

(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)

	PY-1 & Earlier	PY	CY	BY
	-2007	2008	2009	2010
Planning Budgetary Resources	0	0	0	0
Acquisition Budgetary Resources	0	0	0	0
Maintenance Budgetary Resources	733.881	112.2813	111.2012	116.8685
Government FTE Cost	23.519	6.3977	6.4688	6.4165
# of FTEs	89	44	43	41

Note: For the cross-agency investments, this table should include all funding (both managing partner and partner agencies).

Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's?

no

3. If the summary of spending has changed from the FY2009 President's budget request, briefly explain those changes.

The summary of spending is not changing from that stated in the Presidents Budget.

PERFORMANCE

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative measure.

Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding Measurement Area and Measurement Grouping identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov. The table can be extended to include performance measures for years beyond the next President's Budget.

	Fiscal Year	Strategic Goal Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
1	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Operations	Mission Critical Space Station Software Anomalies/ Software Deficits. Goal 8, Objective 8.4 Assure capabilities for world-class research on a laboratory in low Earth orbit.	0	Maintain baseline	0
2	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Delivery Time	Software Products delivered on-time based on Avionics and software schedules on the original calendar plan (block release basis), decoupling them from launch dates Goal 8 and Goal 9	100%	Maintain 100% Baseline	100%
3	2007	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner	Technology	Service Availability	Availability of 95% of the SDIL servers providing the ISS with latest Flight Avionics software which increases safety and reliability to	99%	Maintain a minimum of 95% availability for servers in the SDIL	99%

		commitments and the needs of human Exploration.			ISS on orbit operations. Goal 8 and Goal 9			
4	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Operations	Mission Critical Space Station Software Anomalies/ Software Deficits. Goal 8, Objective 8.4 Assure capabilities for world-class research on a laboratory in low Earth orbit.	0	Maintain baseline	0
5	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Delivery Time	Software Products delivered on-time based on Avionics and software schedules on the original calendar plan (block release basis), decoupling them from launch dates Goal 8	100%	Maintain 100% Baseline	100
6	2008	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	Service Availability	Availability of 95% of the SDIL servers providing the ISS with latest Flight Avionics software which increases safety and reliability to ISS on orbit operations. Goal 8 and Goal 9	99%	Maintain a minimum of 95% availability for servers in the SDIL	100
7	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of	Mission and Business Results	Space Operations	Mission Critical Space Station Software Anomalies/ Software Deficits	0	Maintain baseline	TBD

		human Exploration.						
8	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Delivery Time	Software Products delivered on-time based on Avionics and software schedules on the original calendar plan (block release basis), decoupling them from launch dates	100%	Maintain 100% Baseline	TBD
9	2009	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	Service Availability	Availability of 95% of the SDIL servers providing the ISS with latest Flight Avionics software which increases safety and reliability to ISS on orbit operations.	99%	Maintain a minimum of 95% availability for servers in the SDIL	TBD
10	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Operations	Mission Critical Space Station Software Anomalies/ Software Deficits	0%	Maintain baseline	TBD
11	2010	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Delivery Time	Software Products delivered on-time based on Avionics and software schedules on the original calendar plan (block release basis), decoupling them from launch dates	100%	Maintain 100% Baseline	TBD
12	2010	Goal 2:	Technology	Service	Availability of	99%	Maintain a	TBD

		Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.		Availability	95% of the SDIL servers providing the ISS with latest Flight Avionics software which increases safety and reliability to ISS on orbit operations.		minimum of 95% availability for servers in the SDIL	
13	2011	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Operations	Mission Critical Space Station Software Anomalies/ Software Deficits	0	Maintain baseline	TBD
14	2011	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Delivery Time	Software Products delivered on-time based on Avionics and software schedules on the original calendar plan (block release basis), decoupling them from launch dates	100%	Maintain 100% Baseline	TBD
15	2011	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	Service Availability	Availability of 95% of the SDIL servers providing the ISS with latest Flight Avionics software which increases safety and reliability to ISS on orbit operations.	99%	Maintain a minimum of 95% availability for servers in the SDIL	TBD
16	2011	Goal 2: Complete the International Space	Mission and Business Results	Space Operations	Mission Critical Space Station Software Anomalies/	0	Maintain baseline	TBD

		Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.			Software Deficits			
17	2012	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Customer Results	Delivery Time	Software Products delivered on-time based on Avionics and software schedules on the original calendar plan (block release basis), decoupling them from launch dates	100%	Maintain 100% Baseline	TBD
18	2012	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	Service Availability	Availability of 95% of the SDIL servers providing the ISS with latest Flight Avionics software which increases safety and reliability to ISS on orbit operations.	99%	Maintain a minimum of 95% availability for servers in the SDIL	TBD
19	2012	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Mission and Business Results	Space Operations	Mission Critical Space Station Software Anomalies/ Software Deficits	0	Maintain baseline	TBD
20	2013	Goal 2: Complete the International Space Station in a manner consistent	Customer Results	Delivery Time	Software Products delivered on-time based on Avionics and software schedules on	100	Maintain 100% Baseline	TBD

		with NASA's International Partner commitments and the needs of human Exploration.			the original calendar plan (block release basis), decoupling them from launch dates			
21	2013	Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration.	Technology	Service Availability	Availability of 95% of the SDIL servers providing the ISS with latest Flight Avionics software which increases safety and reliability to ISS on orbit operations.	99%	Maintain a minimum of 95% availability for servers in the SDIL	TBD

EA

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?

yes

2. Is this investment included in the agency's EA Transition Strategy?

yes

2.a. If yes, provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

International Space Station

3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture?

yes

3.a. If yes, provide the six digit code corresponding to the agency segment architecture. The segment architecture codes are maintained by the agency Chief Architect.

463-000

4. Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.whitehouse.gov/omb/egov/.

Component: Use existing SRM Components or identify as NEW. A NEW component is one not already identified as a service component in the FEA SRM.

Reused Name and UPI: A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

Internal or External Reuse?: Internal reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. External reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

Funding Percentage: Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the funding level transferred to another agency to pay for the service.

	Agency Component	Agency Component	Service Type	Component	Reused Component	Reused UPI	Internal or	Funding %

	Component Name	Component Description	Type		Component Name	UPI	or External Reuse?	%
1	Back Office Services	Defines the set of capabilities that support the management of enterprise planning and transactional-based functions.	Data Management	Data Recovery			No Reuse	15
2	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Customer Relationship Management	NEW			No Reuse	10
3	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Customer Relationship Management	NEW			No Reuse	10
4	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Systems Management	License Management			No Reuse	7
5	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Systems Management	System Resource Monitoring			No Reuse	8
6	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Systems Management	System Resource Monitoring			No Reuse	8

7	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Systems Management	System Resource Monitoring			No Reuse	8
8	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Systems Management	System Resource Monitoring			No Reuse	8
9	Support Services	The Support Services Domain defines the set of cross-functional capabilities that can be leveraged independent of Service Domain objective and / or mission.	Systems Management	System Resource Monitoring			No Reuse	8

5. To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component: Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications.

Service Specification: In the Service Specification field, Agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

	SRM Component	**Service Area**	**Service Category**	**Service Standard**	**Service Specification (i.e., vendor and product name)**
1	Access Control	Service Access and Delivery	Access Channels	Web Browser	Internet Explorer
2	Access Control	Service Access and Delivery	Access Channels	Wireless / PDA	Blackberry
3	Access Control	Service Access and Delivery	Access Channels	Collaboration / Communications	Electronic Mail (Email)
4	Access Control	Service Access and Delivery	Delivery Channels	Internet	NA
5	Computers / Automation Management	Service Access and Delivery	Service Transport	Supporting Network Services	NA
6	Computers / Automation Management	Service Platform and Infrastructure	Support Platforms	Independent Platform	Java 2 Enterprise Edition

7	Computers / Automation Management	Service Platform and Infrastructure	Support Platforms	Dependent Platform	Windows XP
8	Software Development	Service Platform and Infrastructure	Software Engineering	Integrated Development Environment	IBM WEbSphere Studio, Visual Studio, Visual Studio .NET
9	System Resource Monitoring	Service Platform and Infrastructure	Database / Storage	Database	Oracle, DB2, SQL, Sybase
10	System Resource Monitoring	Service Platform and Infrastructure	Database / Storage	Storage	NAS, SAN
11	System Resource Monitoring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Enterprise Server
12	System Resource Monitoring	Service Platform and Infrastructure	Hardware / Infrastructure	Peripherals	Printers, Scanners
13	System Resource Monitoring	Service Access and Delivery	Service Requirements	Hosting	Program Internal
14	Data Recovery	Service Access and Delivery	Service Requirements	Hosting	Program Internal
15	System Resource Monitoring	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sun and Windows
16	NEW	Service Platform and Infrastructure	Delivery Servers	Application Servers	Sun and Windows
17	System Resource Monitoring	Service Platform and Infrastructure	Database / Storage	Database	Oracle
18	License Management	Service Platform and Infrastructure	Database / Storage	Database	Oracle
19	System Resource Monitoring	Service Platform and Infrastructure	Database / Storage	Storage	NAS
20	License Management	Service Platform and Infrastructure	Database / Storage	Storage	NAS
21	System Resource Monitoring	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Sun and Windows
22	License Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Sun and Windows
23	License Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Sun and Windows

6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?

no

PART THREE

RISK

You should perform a risk assessment during the early planning and initial concept phase of the investmentâ€™s life-cycle, develop a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investmentâ€™s life-cycle.

Answer the following questions to describe how you are managing investment risks.

1. Does the investment have a Risk Management Plan?

yes

1.a. If yes, what is the date of the plan?

2007-02-05

1.b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?

no

COST & SCHEDULE

1. Was operational analysis conducted?

yes

1.a. If yes, provide the date the analysis was completed.

2008-06-26

What were the results of your operational analysis?

Operational analysis of the investment is conducted monthly during program reviews and the investment is currently within allowable margins for the cost, schedule and technical performance in all aspects. The investment continues to support the completion of the International Space Station in a manner consistent with NASA's International partner commitments and the needs of human exploration. The investment user community consists of all NASA civil servant and contractor personnel involved in the design, integration and verification of software for the C&DH subsystem, the Portable Computer System, and GN&C through the Consolidated Laboratories. The prime contract is a performance based contract for the total integrated design, development, manufacture, and integration of the U.S. On-Orbit Segment (USOS) of the ISS. Boeing is responsible for integrating all ISS systems and subsystems such as the C&DH subsystem, including International Partner/Participant (IP/P) elements that interface with the USOS, government furnished equipment (GFE) developed by other contractors and provided to Boeing, providing ground support equipment (GSE), and providing technical support for ground and orbital operations. The systems within the investment are continuously reviewed with respect to customer satisfaction through the use of surveys, focus groups and review of help desk activity. These reviews illustrate that the investment provides the customers with functionality and performance meeting or exceeding the customer expectations. The measurement baselines for the systems are consistently reviewed to ensure they are measuring the appropriate areas and levels of expectation to allow the provision of high service. Performance goals and measures for the investment have been developed over time to properly track the investment support and operation. The prior fiscal year performance exceeded the goals and measures developed for the investment. The current fiscal year performance is proceeding at a rate to successfully meet the planned results. The near term planning for the investment anticipate no significant changes over the next year or two. Continual review will be used to ensure the historic performance is maintained and enhanced where possible. This investment will continue to operate throughout the life cycle of the ISS.